CW#54&HW#54: Congruent Triangles

Geometry

Due: Tuesday, Dec 8th

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

Failure to show ALL WORK and follow all directions COMPLETELY will result in LaSalle.

So far we have a total of 5 congruence theorems! List each congruence theorem, list the criteria that must be met in order to use them, and draw an example.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1.  2.  3. | 1.  2.  3. | 1.  2.  3. | 1.  2.  3. | 1.  2.  3. |
| Drawn example: | Drawn example: | Drawn example: | Drawn example: | Drawn example: |

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| Objective: You will be able to differentiate between given information, information we know from prior knowledge, and assumed information. | | |
| In your own words, describe what given information means: | In your own words, describe what information from prior knowledge means: | In your own words, describe what assumed information means: |

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| Skylar is completing classwork for Geometry.  Directions: For each congruency statement, identify if the statement is an assumption, prior knowledge, or given information by circling one of the options.  ../../../../../Desktop/Screen%20Shot%202015-12-05%20at%2012.55.48%20PM  Prove that ΔABC ≅ ΔDBE.  Below is Skylar’s work:  AB =BC *assumption prior knowledge given*  CB = BD *assumption prior knowledge given*  ∠ABC ≅ ∠DBE *assumption prior knowledge given*  AC = DE *assumption prior knowledge given*  Determine what theorem Skylar should use to prove congruence and explain why that theorem works:   |  | | --- | |  | |  | |  | | |
| Directions: For each triangle below, write congruency statements for the given information and any information you know from prior knowledge. | |
| ../../../../../Desktop/Screen%20Shot%202015-12-05%20at%204.27.48%20PM  Given Information:  Know from prior knowledge: | ../../../../../Desktop/Screen%20Shot%202015-12-05%20at%204.27.43%20PM  Given information:  Know from prior knowledge: |

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| Objective: You will be able to determine if it is possible to prove that two triangles are congruent. If it is possible, you will be able to determine which theorem you can use to prove it. | |
| Directions: Is it possible to prove that the triangles are congruent? If so, state which theorem you would use and write the 3 congruency statements that support your claim. If not, explain why not. | |
| ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.46.38%Can they be proven congruent (circle one)?  YES NO     3. Theorem: \_\_\_\_\_\_\_\_\_\_   If not, explain why not: | ../../../../../Desktop/CW%2354%20Images/1_2.png  Can they be proven congruent (circle one)?  YES NO     3. Theorem: \_\_\_\_\_\_\_\_\_\_   If not, explain why not: |
| ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.08%  Can they be proven congruent (circle one)?  YES NO     3. Theorem: \_\_\_\_\_\_\_\_\_\_   If not, explain why not: | ../../../../../Desktop/CW%2354%20Images/1_3.png  Can they be proven congruent (circle one)?  YES NO     3. Theorem: \_\_\_\_\_\_\_\_\_\_   If not, explain why not: |

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| Directions: For each problem below, determine if it can be proven that each triangle is congruent. If so, select the theorem you would use and write the 3 congruency statements to support your claim. If not, select “Not congruent” and explain why not. | |
| 1.  ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.08%   1. HL 2. Not Congruent 3. SAS 4. SSS | 2.  ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.14%   1. ASA 2. HL 3. Not congruent 4. AAS |
| 3.  ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.20%   1. SSS 2. Not Congruent 3. SAS 4. ASA | 4.  ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.24%   1. Not congruent 2. SSS 3. AAS 4. ASA |
| 5.  ../../../../../Desktop/CW%2354%20Images/Screen%20Shot%202015-12-05%20at%2012.48.29%   1. Not congruent 2. HL 3. AAS 4. SAS | 6.  ../../../../../Desktop/CW%2354%20Images/2_6.png   1. Not congruent 2. SSS 3. HL 4. SAS |